Abstract

A method for producing 2'-deoxy-2'-fluoro- β -D-arabinonucleoside represented by formula (II): [F3]

(wherein B represents a base), in particular, 2'-deoxy-2'-fluoro- β -D-arabinopurinenucleoside, which method comprises causing a nucleoside phosphorylase to act on α -1-phosphorylated-2-deoxy-2-fluoroarabinoside represented by formula (I):

[F1]

or a mixture of $\alpha-$ and $\beta-$ isomers of 1-phosphorylated-2-deoxy-2-fluoroarabinoside represented by formula (V'): [F2]

and on a base. The compound can be produced at high yield and in a convenient and highly stereoselective manner.